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Date: January 4, 2006

Brooke French
Brooke French

In re application of: **Hochmuth, et al**

Confirmation No.: **5310**

U.S. Application Number: **09/960,523**

Art Unit: **2676**

Filing Date: **September 21, 2001**

Examiner: **Nguyen, Hau H.**

Our Reference Number: **50819-1500**

Title: **System and Method for Communicating Graphics over a Network**

**Appeal Brief Transmittal
Appeal Brief**

Total Pages Transmitted (including cover sheet) - 24

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HEWLETT-PACKARD COMPANY
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P.O. Box 272400
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PATENT APPLICATION

ATTORNEY DOCKET NO. 10010901-1IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Hochmuth, et al

Confirmation No.: 5310

Application No.: 09/960,523

Examiner: Nguyen, Hau H.

Filing Date: September 21, 2001

Group Art Unit: 2676

Title: System and Method for Communicating Graphics Over a Network

Mail Stop Appeal Brief-Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450TRANSMITTAL OF APPEAL BRIEFTransmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on November 14, 2005.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:☐ 1st Month
\$120☐ 2nd Month
\$450☐ 3rd Month
\$1020☐ 4th Month
\$1590☐ The extension fee has already been filed in this application.☒ (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of \$ 500 . At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

By 

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Rev 10/05 (ApI Brief)

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JAN 06 2006

PATENT
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Hochmuth et al.

Serial No.: 09/960,523

Filed: September 21, 2001

For: SYSTEM AND METHOD FOR
COMMUNICATING GRAPHICS OVER
A NETWORKGroup Art Unit: 2676
Examiner: Nguyen, Hau H.

Confirmation No. 5310

TKHR Dkt. No. 50819-1500
HP Docket No. 10010901-1CERTIFICATE OF FACSIMILE TRANSMISSION UNDER 37 CFR §1.8

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January 6, 2006
Date
Brooke FrenchAPPEAL BRIEF UNDER 37 C.F.R. §1.192

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Sir:

This is an appeal from the decision of Examiner Hau Nguyen, Group Art Unit 2676,
mailed October 6, 2005, rejecting claims 1-19 in the present application and making the rejection
FINAL.

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I. REAL PARTY IN INTEREST

The real party in interest of the instant application is Hewlett-Packard Development Company, a Texas Limited Liability Partnership having its principal place of business in Houston, Texas.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF THE CLAIMS

Claim 1-19 are pending in this application, and all claims were rejected by the FINAL Office Action and are the subject of this appeal.

IV. STATUS OF AMENDMENTS

All amendments submitted before the mailing date of the FINAL Office Action have been entered, and no amendments have been submitted subsequent to the mailing of the FINAL Office Action. A copy of the current claims is attached hereto as Appendix A.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Embodiments of the claimed subject matter are illustrated in FIGs. 1 through 12 and are discussed in the specification at least at pages 5-27.

Embodiments of the invention, such as those defined by claim 1, define a system (*See e.g.*, FIG. 10 and related description) which comprises a frame buffer memory (*see e.g.*, reference numeral 420 and related discussion) for storing and maintaining a previous frame of graphics

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information, a temporary memory (see e.g., reference numeral 430 and related discussion) configured to store at least a portion of a current frame of graphics information, comparison logic (see e.g., reference numeral 440 and related discussion) for comparing a portion of the current frame of graphics information with a corresponding portion of the previous frame, and transmission logic (see e.g., reference numeral 450 and related discussion) for transmitting the portion of the current frame to a destination computer (see e.g., reference numeral 50), if the comparison logic (see e.g., reference numeral 440 and related discussion) determines that the portion of the current frame of graphics information differs from the corresponding portion of the previous frame by more than a predetermined measure.

In accordance with other embodiments, such as those defined by claim 14, apparatus (*see e.g.*, FIG. 11 and related description) are provided for displaying graphics information received from a remote computer (see e.g., reference numeral 20) and communicated across a network. The apparatus comprise an input (*see e.g.*, reference number 602) for receiving packetized graphics information. The apparatus also comprise input logic (*see e.g.*, reference number 626) configured to format and store a portion of a frame of graphics information received at the input into an appropriate location of a frame buffer memory (*see e.g.*, reference number 604), the portion being an amount less than the whole frame buffer.

In accordance with other embodiments, such as those defined by claim 16, methods (*see e.g.*, FIG. 12 and related description) is provided that stores a frame of graphics information obtained from a video signal, receives at least a portion of a current frame of graphics information (see e.g., reference numeral 706 and related discussion), compares a portion of the current frame of graphics information with a corresponding portion of the stored frame of graphics information (see e.g., reference numeral 420 and related discussion). Then, if the

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compared portion of the current frame of graphics information differs by at least a predetermined amount from the corresponding portion of the stored graphics information (see e.g., reference numeral 710 and related discussion), the method transmits the compared portion of the current frame of graphics information to a destination computer and overwrites the corresponding portion of the stored graphics information with the compared portion of the current frame of graphics information (see e.g., reference numeral 712 and related discussion).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Office Action rejected claims 1-3, 6-8, 13-14, 16-17, and 19 under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. patent 6,321,855 to Schauser (hereinafter Schauser).

The Office Action rejected claims 10-12 under 35 U.S.C. § 103(a) as allegedly obvious over Schauser.

The Office Action rejected claims 5, 15, and 18 under 35 U.S.C. § 103(a) as allegedly obvious over the combination of Schauser in view of U.S. patent 5,990,852 to Szamrej (hereinafter Szamrej).

The Office Action rejected claims 4 and 9 under 35 U.S.C. § 103(a) as allegedly obvious over the combination of Schauser in view of U.S. patent 6,094,453 to Gosselin (hereinafter Gosselin).

VII. ARGUMENT

Schauser is relied upon for the rejection of all claims 1-19. Specifically, the Office Action rejected claims 1-3, 6-8, 13-14, 16-17, and 19 under 35 U.S.C. § 102(e) as allegedly anticipated by *Schauser*. The remaining claims were rejected based on alleged teachings of

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Schauser when combined with other references under 35 U.S.C. § 103(a). For at least the reasons set forth herein, Applicants disagree with the rejections and respectfully request that they be overturned by the Board.

Fundamental Distinction of Claimed Embodiments (applicable to all claim groups)

There are several significant distinctions between the embodiments defined in the independent claims of the present application and the teachings of *Schauser*. For example, the claims of the present application define apparatuses and methods that interact at the frame-buffer level. That is, the graphics information that is communicated across the network is graphics information from the frame buffer. In this regard, independent claim 1 defines “*a frame buffer memory*,” “a temporary memory [for storing] *a current frame* of graphics information,” “comparison logic for comparing a portion of the *current frame* ... previous frame,” and “transmission logic for transmitting the portion of the *current frame*...” Independent claims 14 and 16 also have language that defines their applicability to the frame buffer level.

In contrast to this claimed aspect, or even the communication of graphics information across a network generally, the teachings of *Schauser* appear to be concerned with the control of a remote (or target) computer, and the implementation of the system of *Schauser* appears to occur at a much higher level than the hardware/frame buffer level of the claimed embodiments. In this regard, *Schauser* states:

The present invention provides thin-client, thin-host software space for remote desktop access and collaborative work. It enables easy, on-demand access to any computer wherever and whenever needed through all types of terminals, including Java-enabled Web browsers. The host software is a very small executable that can be downloaded and started through any web browser. Because it does not replace any device drivers, but rather, polls the screen for any changes, it can be started without requiring a re-boot and does not

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introduce any incompatibilities with other running programs. Similarly, the client software is also a very small software program, which can also be implemented as a small downloadable Java applet. The size of the client and host software is such that both can be downloaded quickly over a low-bandwidth internet connection.

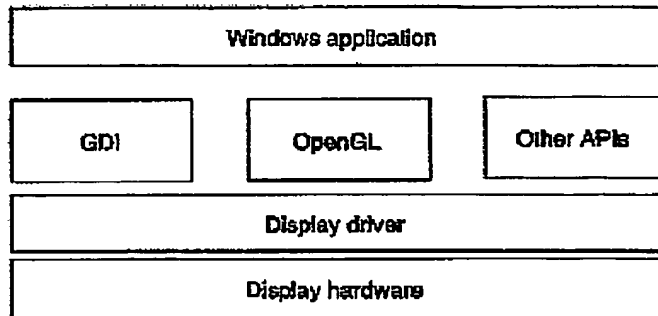
Due to the small size and lack of incompatibilities, the software provided by the present invention is very well suited for technical support. *All that is required for a technical support engineer to help a customer is for both to point their browser to a web site that contains the software. The customer quickly downloads the host software, the support engineer downloads the client applet, the connection is automatically established and the support engineer can help the customer as if sitting right next to him. The host sends the desktop image to the client, which then displays the host desktop inside the browser window.* The client forwards any keyboard or mouse input to the host, which responds to them just as if they were made directly on the host machine. Any changes on the host desktop can be seen in the client browser window. Thus it is possible to transparently work from any client on the remote host. In fact, multiple clients can connect simultaneously to the host for collaborative purposes.

(*Emphasis added*, Schauser, col. 3, lines 11-44.)

Thus, not only does the system of Schauser not entail any hardware changes to conventional computers, it does not even entail any device driver changes. Instead, the system of Schauser appears to be implemented through small host and client executables or software programs.

Such executables or software programs are outside the context of the frame buffer, and therefore outside the scope of the claimed embodiments. To assist the Examiner, the undersigned provides the following drawing, which was obtained from an article entitled "Introduction to OpenGL on Windows" taken from the Web site maintained by the OpenGL organization (www.opengl.org). Specifically, the figure was obtained from:
http://www.opengl.org/developers/documentation/OGL_userguide/OpenGLonWin-10.html)

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As can be readily observed from the figure, and verified from a number of other publicly-available sources, the “host executable” or “client software” reside in the uppermost (illustrated) “Windows application” level, as the software of *Schauser* apparently interacts or embeds within the host browser (which is at the Windows application level). Importantly, the software of *Schauser* does NOT reside at the level of the frame buffer (within the display hardware), and as such, the teachings of *Schauser* cannot properly anticipate the claims of the present application.

The FINAL Office Action has responded to this distinction by stating “it is noted that the features upon which applicant relies (i.e., ‘the hardware level implementation of the frame buffer’) are not received in the rejected claims.” (Office Action, p. 2, lines 6-7). Applicants respectfully disagree. For example, the very first element of claim 1 defines “a frame buffer memory for storing and maintaining at least a portion of a previous frame of graphics information...” The Office Action refers to element 18 of *Schauser*, which merely discloses a conventional frame buffer. There is no disclosure in *Schauser* of the frame buffer storing and maintaining at least a portion of a previous frame of graphics information...” Additional features

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also distinguish the various claims, and such distinguishing features will be discussed below in connection with specific claims.

For at least this reason the rejections of all claims are fundamentally misplaced and should be overturned.

Discussion of Claims 1-13

Turning now to the specific claim rejections, independent claim 1 was rejected under 35 U.S.C. § 102(e) as allegedly anticipated by *Schauser*. Applicants respectfully submit that this rejection should be reconsidered and overturned.

Independent claim 1 recites:

1. An apparatus for communicating graphics across a network comprising:
 a frame buffer memory for storing and maintaining at least a portion of a previous frame of graphics information, the graphics information being contained in a video signal;
 a temporary memory configured to store at least a portion of a current frame of graphics information;
 comparison logic for comparing a portion of the current frame of graphics information with a corresponding portion of the previous frame; and
 transmission logic for transmitting the portion of the current frame to a destination computer, *if the comparison logic determines that the portion of the current frame of graphics information differs from the corresponding portion of the previous frame by more than a predetermined measure.*

(*Emphasis added.*) Claim 1 patently defines over *Schauser* for at least the reason that *Schauser* fails to disclose the features emphasized (bold and italic) above.

As discussed above, the embodiments of claim 1 defines an apparatus that interacts at the frame buffer level. In this regard, the apparatus comprises comparison logic that compares graphics information stored in a frame buffer memory. As discussed above (which discussion is repeated and realleged herein), *Schauser* does not disclose or teach this comparison logic. In

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addition, claim 1 calls for transmission logic that transmits a portion of a current frame (i.e., information from the frame buffer memory) to a remote computer. The transmission to a remote computer (in order to control a target computer) of information through software that is embedded within a browser (as taught by *Schauser*) is NOT the same as, nor the equivalent of, the transmission of data from a frame buffer memory, as specifically claimed by claim 1. For at least this reason, claim 1 defines over the cited art.

Further, and as a separate and independent reason for the patentability of claim 1, claim 1 calls for the transmission logic to transmit the compared graphics information "if the comparison logic determines that the portion of the current frame of graphics information differs from the corresponding portion of the previous frame by more than a predetermined measure." *Schauser* teaches no such feature.

In fact, the Office Action (page 4, line 3) cites col. 5, lines 6-23 of *Schauser* for allegedly teaching this feature. In fact, this portion of *Schauser* actually states:

The CPU 12 may poll a particular line, or a portion (or portions) of a particular line or area, as described in detail below. The portion (or portions) may be predetermined portions, statistically determined portions or arbitrarily determined portions. ***For example, the CPU 12 may poll a number of subregions (tiles) or lines of the screen, to determine if a change has occurred.*** In that regard, the subregions (tiles) or lines may be predetermined location(s), statistically determined location(s) or arbitrarily determined location(s). In particular, each frame of pixels that are currently displayed are stored in the frame buffer 18, while the pixels representing a previously displayed image, for example, the last updated image, are stored in system memory 16. The technique(s) of the present invention compares a portion of the currently displayed image to a corresponding portion of a previously displayed image to determine if changes have occurred. ***If so, the changes are stored and/or forwarded to the remote computer 4 (FIG. 1A).***

Rather than a comparison of data within a frame buffer (as claimed), *Schauser* apparently teaches the comparison of lines, areas, tiles, or regions (which are statistically determined or arbitrarily

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determined) to determine if any changes have occurred. If so, the changes are stored and/or forwarded to the remote computer. However, there is no teaching whatsoever in *Schauser* as to any threshold measure that triggers or limits the transmission. In this regard, *Schauser* appears to teach the transmission of each block if there is any detectable difference, whereas claim 1 specifically defines an apparatus that transmits frame buffer information to a remote computer "if the comparison logic determines that the portion of the current frame of graphics information differs from the corresponding portion of the previous frame *by more than a predetermined measure.*" For at least this additional reason, claim 1 defines over the cited art.

For at least the foregoing reasons, Applicants respectfully submit that the rejections of claim 1 are misplaced and should be overturned. Of course, the rejections of claims 2-13, which depend from claim 1 (in therefore incorporate all of the features of claim 1), should be overturned for at least the same reasons.

Discussion of Claims 14-15

Independent claim 14 was rejected under 35 U.S.C. § 102 as allegedly anticipated by *Schauser*. Applicants respectfully submit that this rejection should be overturned.

Independent claim 14 recites:

14. An apparatus for displaying graphics information received from a remote computer and communicated across a network comprising:
an *input for receiving packetized graphics information*; and
input logic configured to format and store a portion of a frame of graphics information received at the input into an appropriate location of a frame buffer memory, the portion being an amount less than the whole frame buffer.

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(*Emphasis added.*) Claim 14 patently defines over *Schauser* for at least the reason that *Schauser* fails to disclose the features emphasized (bold and italic) above.

Unfortunately, the Office Action did not provide separate and independent treatment or discussion of claim 14, but instead grouped it with claim 1 (setting forth only a single rejection for both claims – notwithstanding the significant differences between the two claims). Applicants pointed out at least one of these distinctions in response to the previous (non-Final) Office Action. Notwithstanding, the FINAL Office Action still did not provide a separate analysis or treatment of claim 14.

As described above, *Schauser* does not interact at the frame buffer level and as such does not teach the “input logic” claimed by claim 14. In this regard, claim 14 defines input logic that is configured to receive packetized graphics information, then formats and stores that information in a portion of (and less than all) ***the frame buffer memory***. *Schauser*, instead, appears to teach the integration of software in browser software (or other application-level software) for communicating certain information between computers or workstations, in connection with the remote control of a computer or workstation. Significantly, *Schauser* fails to teach the claimed feature of receiving and formatting graphics information to be directly stored in a frame buffer memory.

For at least this reason (and in addition to the fundamental distinction discussed above – which is repeated and realleged herein), Applicants respectfully submit that the rejection of claim 14 is misplaced and should be overturned. Of course, the rejection of claim 15, which depends from claim 14 (and incorporates all of the features and limitations of that claim), should be overturned for at least the same reasons.

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Discussion of Claims 16-19

Turning now to independent claim 16, claim 16 was rejected under 35 U.S.C. § 102 as allegedly anticipated by *Schauser*. Applicants respectfully submit that this rejection should be overturned.

Independent claim 16 recites:

16. A method for communicating graphics across a computer network comprising:
storing at least a portion of a frame of graphics information obtained from a video signal;
receiving at least a portion of a current frame of graphics information;
comparing a portion of the current frame of graphics information
with a corresponding portion of the stored frame of graphics information;
if the compared portion of the current frame of graphics information differs by at least a predetermined amount from the corresponding portion of the stored graphics information, then transmitting the compared portion of the current frame of graphics information to a destination computer; and
if the compared portion of the current frame of graphics information differs by at least a predetermined amount from the corresponding portion of the stored graphics information, then overwriting the corresponding portion of the stored graphics information with the compared portion of the current frame of graphics information.

(*Emphasis added.*) Claim 16 patently defines over *Schauser* for at least the reason that *Schauser* fails to disclose the features emphasized (bold and italic) above.

As with claim 14, the Office Action did not provide a separate and independent treatment or discussion of claim 16, but instead grouped it with claim 1 (setting forth only a single rejection for claims 1, 14, and 16 – notwithstanding the significant differences between the claims). Applicants pointed out at least one of these distinctions in response to the previous (non-Final) Office Action. Notwithstanding, the FINAL Office Action still did not provide a separate analysis or treatment of claim 14.

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As described above, *Schauser* does not interact at the frame buffer level and as such does not teach the “storing at least a portion of a frame of graphics information obtained from a video signal,” as claimed by claim 16. In this regard, the method of claim 16 compares graphics information stored in a frame buffer memory, and *Schauser* does not teach such a comparison step. In addition, claim 16 calls for the transmission of a portion of a current frame (i.e., information from the frame buffer memory) to a remote computer. The transmission to a remote computer (in order to control a target computer) of commands or signals at the application program level (as taught by *Schauser*) is NOT the same as (and therefore cannot properly anticipate) the transmission of data from a frame buffer memory. For at least this reason, claim 16 clearly defines over the cited art.

Further, and as a separate and independent reason for the patentability of claim 16, claim 16 calls for the transmission of the compared graphics information “*if the compared portion of the current frame of graphics information differs by at least a predetermined amount from the corresponding portion of the stored graphics information.*” *Schauser* teaches no such feature. The Office Action wholly fails to address this element, as noted in connection with claim 14 above.

For at least the foregoing reasons, Applicants respectfully submit that the rejection of claim 16 is misplaced and should be overturned. The rejections of claims 17-19, which depend from claim 16 (and incorporate all of the features and limitations of that claim), should be *withdraw* for at least the same reasons.

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Additional Discussion of Claims 5, 15, and 18

The Office Action rejected claims 5, 15, and 18 under 35 U.S.C. § 103(a) as allegedly obvious over *Schauser* in view of *Szamrej*. As noted above, dependent claims 5, 15, and 18 patently define over the cited art for at least the reason that they depend from, and incorporate the features of, independent claims that define over the cited art. In addition, Applicants respectfully submit that there is no proper motivation or suggestion to combine these selected teachings from these references, in the manner alleged by the Office Action.

In this regard, it is well-settled law that in order to properly support an obviousness rejection under 35 U.S.C. § 103, there must have been some teaching in the prior art to suggest to one skilled in the art that the claimed invention would have been obvious. W. L. Gore & Associates, Inc. v. Garlock Thomas, Inc., 721 F.2d 1540, 1551 (Fed. Cir. 1983). More significantly,

"The consistent criteria for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this [invention] should be carried out and would have a reasonable likelihood of success, viewed in light of the prior art. ..." Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure... In determining whether such a suggestion can fairly be gleaned from the prior art, the full field of the invention must be considered; for the person of ordinary skill in the art is charged with knowledge of the entire body of technological literature, including that which might lead away from the claimed invention."

(Emphasis added) In re Dow Chemical Company, 837 F.2d 469, 473 (Fed. Cir. 1988).

In this regard, Applicants note that there must not only be a suggestion to combine the functional or operational aspects of the combined references, but that the Federal Circuit also requires the prior art to suggest both the combination of elements and the structure resulting from the combination. Stiftung v. Renishaw PLC, 945 Fed.2d 1173 (Fed. Cir. 1991). Therefore, in order to sustain an obviousness rejection based upon a combination of any two or more prior art references, the prior art must properly suggest the desirability of combining the particular elements

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to create a method and apparatus for communicating graphics across a network as claimed by the Applicants.

Instead, the Office Action has alleged only that it would have been obvious to combine *Szamrej* with *Schauser* “in order to provide a screen transfer method that is efficient in use of CPU resources, memory, and bandwidth (col. 2, lines 11-13).” (Office Action, p. 6, lines 8-9) The allegation that a result of a combination (e.g., that the combination would result in an efficient use of CPU resources, memory, and bandwidth”) does not satisfy the legal requisites for a proper motivation or suggestion to combine features out of references (which must be made without the use of hindsight). Further, as the relevant claims do not specify CPU resources or bandwidth, the alleged motivation is not sufficiently relevant to the claimed subject matter to merit a suggestion to combine features from the two references. For at least this additional reason, the rejection of claims 5, 15, and 18 should be overturned.

Additional Discussion of Claims 4 and 9

The Office Action rejected claims 4 and 9 under 35 U.S.C. § 103(a) as allegedly obvious over *Schauser* in view of *Gosselin*. As noted above, dependent claims 4 and 9 patently define over the cited art for at least the reason that they depend from, and incorporate the features of, independent claims that define over the cited art. In addition, Applicants respectfully submit that there is no proper motivation or suggestion to combine these selected teachings from these references, in the manner alleged by the Office Action.

Similar to the result-oriented rationale that the Office Action used in connection with claims 5, 15, and 18, the Office Action rejected claims 4 and 9 by merely alleging that the combination of *Schauser* and *Gosselin* would have been obvious “in order to provide improved

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video transmission (col. 4, lines 2-6).” (Office Action, p. 7, line 5). The mere fact that a combination could yield improved results (even if true) falls far short of the legal standards for motivating or suggesting a combination of teachings from distinct references. Therefore, the rejection of claims 4 and 9 is misplaced, and for at least this additional reason, the rejection of claims 4 and 9 should be overturned.

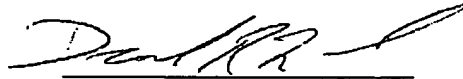
CONCLUSION

Based upon the foregoing discussion, Applicant respectfully requests that the Examiner’s final rejection of claims 1-19 be overturned by the Board, and that the application be allowed to issue as a patent with all pending claims 1-19.

In addition to the claims of Appendix A, Appendix B attached hereto indicates that there is no evidence being attached and relied upon by this brief. Appendix C attached hereto indicates that there are no related proceedings.

Please charge Hewlett-Packard Company’s deposit account 08-2025 in the amount of \$500 for the filing of this Appeal Brief. No additional fees are believed to be due in connection with this Appeal Brief. If, however, any additional fees are deemed to be payable, you are hereby authorized to charge any such fees to deposit account No. 08-2025.

Respectfully submitted,



Daniel R. McClure
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VIII. CLAIMS - APPENDIX

1. An apparatus for communicating graphics across a network comprising:
a frame buffer memory for storing and maintaining at least a portion of a previous frame of graphics information, the graphics information being contained in a video signal;
a temporary memory configured to store at least a portion of a current frame of graphics information;
comparison logic for comparing a portion of the current frame of graphics information with a corresponding portion of the previous frame, wherein the portion is an amount less than the entire frame buffer; and
transmission logic for transmitting only the portion of the current frame to a destination computer, if the comparison logic determines that the portion of the current frame of graphics information differs from the corresponding portion of the previous frame by more than a predetermined measure.
2. The apparatus of claim 1, wherein the frame buffer memory is configured to store an entire frame of graphics information.
3. The apparatus of claim 1, wherein the predetermined measure is any quantifiable difference.
4. The apparatus of claim 1, wherein the video signal is an analog video signal.

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5. The apparatus of claim 1, further comprising compression logic for compressing the portion of the current frame before transmission.
6. The apparatus of claim 1, further comprising a network interface circuit coupled to both the transmission logic and the network, the network interface circuit configured to format and communicate the graphics information over the network to a remote computer.
7. The apparatus of claim 1, wherein the network comprises a local area network (LAN).
8. The apparatus of claim 1, wherein the network comprises a wide area network (WAN).
9. The apparatus of claim 6, wherein the network interface circuit is configured to format the graphics information into a plurality of Internet Protocol (IP) packets that are communicated over the computer network to the remote computer.
10. The apparatus of claim 1, further comprising a second input for receiving a second video signal.
11. The apparatus of claim 10, further comprising a second frame buffer memory for storing and maintaining a previous frame of graphics information from the second video signal.

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12. The apparatus of claim 10, further comprising a second temporary memory configured to store at least a portion of a current frame of graphics information from the second video signal.

13. The apparatus of claim 1, wherein temporary memory is configured to store an entire frame of the current frame of graphics information

14. An apparatus for displaying graphics information received from a remote computer and communicated across a network comprising:
an input for receiving packetized graphics information; and
input logic configured to format and store a portion of a frame of graphics information received at the input into an appropriate location of a frame buffer memory, the portion being an amount less than the whole frame buffer.

15. The apparatus of claim 14, wherein the input logic further comprises logic configured to decompress received graphics information.

16. A method for communicating graphics across a computer network comprising:
storing at least a portion of a frame of graphics information obtained from a video signal;
receiving at least a portion of a current frame of graphics information;
comparing a portion of the current frame of graphics information with a corresponding portion of the stored frame of graphics information, wherein the portion is an amount less than the entire frame buffer;

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if the compared portion of the current frame of graphics information differs by at least a predetermined amount from the corresponding portion of the stored graphics information, then transmitting the compared portion of the current frame of graphics information to a destination computer; and

if the compared portion of the current frame of graphics information differs by at least a predetermined amount from the corresponding portion of the stored graphics information, then overwriting the corresponding portion of the stored graphics information with the compared portion of the current frame of graphics information.

17. The method of claim 16, wherein the step of receiving at least a portion of the current frame of graphics information more specifically comprises receiving an entire frame of graphics information.

18. The method of claim 16, further comprising compressing the compared portion of the current frame of graphics information before transmitting to the destination computer.

19. The method of claim 16, wherein the predetermined measure is any quantifiable difference.

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IX. EVIDENCE - APPENDIX

None.

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IX. RELATED PROCEEDINGS- APPENDIX

None.

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